

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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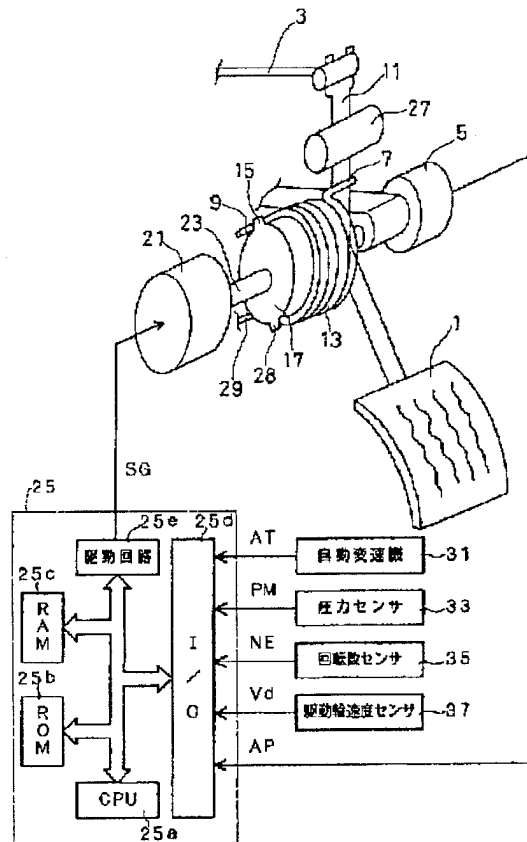
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APPLICANT : NIPPONDENSO CO LTD;

INVENTOR : HARA MITSUO;

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F02D 11/10

TITLE : STEPPING REACTION FORCE  
CONTROLLER FOR ACCELERATOR  
PEDAL



ABSTRACT : PURPOSE: To provide the driving feeling conforming to a driver's demand or the operation feeling conforming to the road surface state, operation state, etc., to a driver, by adjusting and controlling the stepping on reaction force of an accelerator pedal.

CONSTITUTION: A return spring stopper 17 equipped with a projection 15 which contacts one bar part 9 of a return spring 13 for applying a stepping reaction force to an accelerator pedal 1 is turned by a stepping motor 21 on the basis of the control signal SG supplied from an electronic controller 25, and the initial return force FO acting on an accelerator pedal 1 can be varied. An electronic controller 25 calculates the road surface  $\mu$  value from the sensor signal, and on a low  $\mu$  road, the stepping reaction force of the accelerator pedal 1 is increased to suppress the stepping ON of the accelerator by a driver.

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